

<b>Aeronautics Educator Guide</b>			
<b>2002 Science</b>			
<b>Core Curriculum</b>			
<b>Utah Science</b>			
<b>Grade 3</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Air Engines (12-16)	UT	SCI.3.2.2.e	Pose a question about the interaction between living and nonliving things in the environment that could be investigated by observation.
Air Engines (12-16)	UT	SCI.3.3.2.a	Predict and observe what happens when a force is applied to an object (e.g., wind, flowing water).
Air Engines (12-16)	UT	SCI.3.4.1.b	Use measurement to demonstrate that heavier objects require more force than lighter ones to overcome gravity.
Air Engines (12-16)	UT	SCI.3.4.2.b	Observe, record, and compare the effect of gravity on several objects in motion (e.g., a thrown ball and a dropped ball falling to Earth).
Air Engines (12-16)	UT	SCI.3.4.2.c	Pose questions about gravity and forces.
Air Engines (12-16)	UT	SCI.3.5.2.c	Predict, measure, and graph the temperature changes produced by a variety of mechanical machines and electrical devices while they are operating.
Rotor Motor (69-75)	UT	SCI.3.3.2.d	Conduct a simple investigation to show what happens when objects of various weights collide with one another (e.g., marbles, balls).
Flight: Interdisciplinary Learning Activities (76-79)	UT	SCI.3.3.2.d	Conduct a simple investigation to show what happens when objects of various weights collide with one another (e.g., marbles, balls).
Where is North? The Compass Can Tell Us (87-90)	UT	SCI.3.3.2.d	Conduct a simple investigation to show what happens when objects of various weights collide with one another (e.g., marbles, balls).
Dunked Napkin ( 17-22)	UT	SCI.3.3.2.a	Predict and observe what happens when a force is applied to an object (e.g., wind, flowing water).
Dunked Napkin ( 17-22)	UT	SCI.3.3.2.d	Conduct a simple investigation to show what happens when objects of various weights collide with one another (e.g., marbles, balls).
Dunked Napkin ( 17-22)	UT	SCI.3.4.2.c	Pose questions about gravity and forces.
Dunked Napkin ( 17-22)	UT	SCI.3.5.2.c	Predict, measure, and graph the temperature changes produced by a variety of mechanical machines and electrical devices while they are operating.
Paper Bag Mask (23-28)	UT	SCI.3.3.2.a	Predict and observe what happens when a force is applied to an object (e.g., wind, flowing water).
Paper Bag Mask (23-28)	UT	SCI.3.4.1.b	Use measurement to demonstrate that heavier objects require more force than lighter ones to overcome gravity.
Paper Bag Mask (23-28)	UT	SCI.3.4.2.c	Pose questions about gravity and forces.

Paper Bag Mask (23-28)	UT	SCI.3.5.2.c	Predict, measure, and graph the temperature changes produced by a variety of mechanical machines and electrical devices while they are operating.
Wind in Your Socks) (29-35)	UT	SCI.3.3.2.a	Predict and observe what happens when a force is applied to an object (e.g., wind, flowing water).
Wind in Your Socks) (29-35)	UT	SCI.3.4.1.b	Use measurement to demonstrate that heavier objects require more force than lighter ones to overcome gravity.
Wind in Your Socks) (29-35)	UT	SCI.3.4.2.b	Observe, record, and compare the effect of gravity on several objects in motion (e.g., a thrown ball and a dropped ball falling to Earth).
Wind in Your Socks) (29-35)	UT	SCI.3.4.2.c	Pose questions about gravity and forces.
Wind in Your Socks) (29-35)	UT	SCI.3.5.2.c	Predict, measure, and graph the temperature changes produced by a variety of mechanical machines and electrical devices while they are operating.
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<b>2002 Science</b>			
<b>Core Curriculum</b>			
<b>Utah Science</b>			
<b>Grade 4</b>			
<b>Activity/Lesson</b>	<b>State</b>	<b>Standards</b>	
Air Engines (12-16)	UT	SCI.4.2.1.b	Observe, measure, and record data on the basic elements of weather over a period of time (i.e., precipitation, air temperature, wind speed and direction, and air pressure).
We Can Fly, You and I: Interdisciplinary Learning (107-108)	UT	SCI.4.2.3.a	Identify and use the tools of a meteorologist (e.g., measure rainfall using rain gauge, measure air pressure using barometer, measure temperature using a thermometer).
Dunked Napkin ( 17-22)	UT	SCI.4.2.3.c	Predict weather and justify prediction with observable evidence.
Paper Bag Mask (23-28)	UT	SCI.4.2.1.b	Observe, measure, and record data on the basic elements of weather over a period of time (i.e., precipitation, air temperature, wind speed and direction, and air pressure).
Paper Bag Mask (23-28)	UT	SCI.4.2.3.c	Predict weather and justify prediction with observable evidence.
Wind in Your Socks) (29-35)	UT	SCI.4.2.1.b	Observe, measure, and record data on the basic elements of weather over a period of time (i.e., precipitation, air temperature, wind speed and direction, and air pressure).
Wind in Your Socks) (29-35)	UT	SCI.4.2.1.c	Investigate evidence that air is a substance (e.g., takes up space, moves as wind, temperature can be measured).

Wind in Your Socks) (29-35)	UT	SCI.4.2.2.c	Infer relationships between wind and weather change (e.g., windy days often precede changes in the weather; south winds in Utah often precede a cold front coming from the north).
Wind in Your Socks) (29-35)	UT	SCI.4.2.3.b	Describe how weather and forecasts affect people's lives.
Wind in Your Socks) (29-35)	UT	SCI.4.2.3.c	Predict weather and justify prediction with observable evidence.
Wind in Your Socks) (29-35)	UT	SCI.4.2.3.e	Relate weather forecast accuracy to evidence or tools used to make the forecast (e.g., feels like rain vs. barometer is dropping).
Air: Interdisciplinary Learning Activities (36- 39)	UT	SCI.4.2.1.c	Investigate evidence that air is a substance (e.g., takes up space, moves as wind, temperature can be measured).